Genoa National Fish Hatchery News and Notes

May 2017

About Genoa NFH

Genoa NFH was established over 80 years ago by the Upper Mississippi River Fish and Wildlife Act. The mission of the hatchery has changed from providing sport fish for area waters to a conservation hatchery concerned with the recovery of endangered aquatic species.

The hatchery is open for tours during business hours. For large groups, please call for an appointment. You can reach the hatchery at 608-689-2605 from 7:30 am to 3:30 pm. You can also find us online at: fws.gov/midwest/genoa

And on Facebook at: facebook.com/GenoaNFH

5th Annual Fishability Day

On June 10th, 2017, Genoa National Fish Hatchery partnered once again with the Southwest Wisconsin Lions Club District 27 for the 5th Annual Fishability Day. Over 70 people were in attendance for the day, with 24 children registered, over 25 volunteers from the Lion's Club and the Friends of the Upper Mississippi as well as the Stoddard Bergen Volunteer Fire Department to handle any rogue hook incidents! The volunteers helped the parents and children with casting, setting the hook and reeling in the catch! This full service event provided families fish cleaning services by the volunteers as well, so they were able to go right home and cook up their catch of the day. The hatchery was originally approached by the Lions Club as a possible location to host this event for children with accessibility issues because of the fishing dock on pond 2, purchased and donated by Dairyland Power Company in 2009, and the ease of access through the dike roads to the water. This annual event is one of the rewarding moments for hatchery staff, helping families enjoy the outdoors in this area and providing a space for children to have, as one participant said "The best day of my life!" By Angela Baran Dagendesh

After catching his 4th fish, he declared it was the best day of his life!

2017 Fishability Participants

Our Great River: a day of talks about the land, the water and monster fish

On May 19th partners of the National Mississippi River Museum and Aquarium gathered to welcome a new traveling exhibit from National Geographic; Monster Fish and its biologist host, Dr. Zeb Hogan from University of Nevada, Reno. As part of the kickoff of the event the museum hosted a day of lectures about the local aquatic environment with panels focusing on animals as bio-indicators and responsible management of lands for water protection. A Genoa NFH mussel biologist was invited to give a lecture about freshwater mussels as bio-indicators. The shells of mussels preserve records of historic nutrients and heavy metals while live mussel tissues preserve PAH's (Polyaromatic hydrocarbons) and hormones (estrogen). This presentation builds on the relationship between the museum and hatchery. Hatchery propagated mussels spend the summer in the ice harbor behind the museum in either floating cages or floating upwelling systems. The mussels grown out there are used to teach students from elementary through college about endangered and invasive species, ecosystems and the biology of the species before being released into the wild to perpetuate their species. By Megan Bradley

National Mississippi River Museum staff and Dr. Zeb Hogan celebrating the opening of the Monster Fish Exhibit.

Genoa National Fish Hatchery's mission is to recover, restore, maintain and enhance fish and aquatic resources on a basin-wide and national level by producing over 35 aquatic species of varying life stages, participating in active conservation efforts with our partners, and becoming a positive force in the community by educating future generations on the benefits of conservation stewardship

Genoa National Fish Hatchery
75 Years of Fisheries Conservation
1932-2007

Sturgeon Take Across the Border

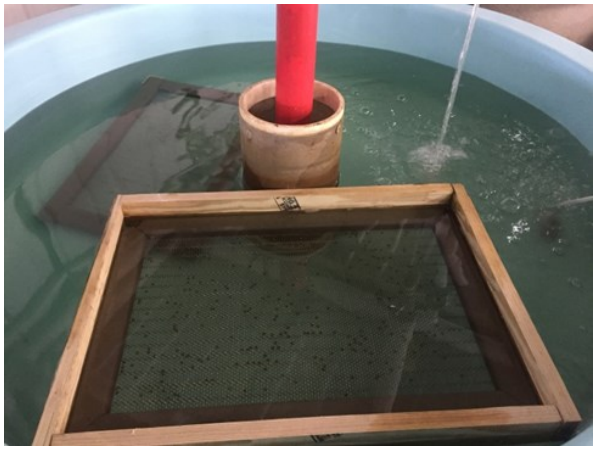
Many times it has been said "Fish pay no attention to boundaries". This is usually in reference to the differing regulations that are found in bodies of water that happen to cross a state or international boundary. Fish biologists however, must pay close attention to boundaries, particularly when it comes to the importation of eggs and fish. This year, with 4 ongoing restoration programs of fish using originating populations of lake sturgeon from "across the border" of Canada, hatchery staff and their partners have joined forces with tribal and Ministry official to mobilize for brood fish and egg collections with intent to bring them to the Genoa hatchery for rearing and subsequent release. Earlier this May, the hatchery travelled with Nick Bloomfield of the Lacrosse Fish and Wildlife Conservation Office to the Rainy River, just north of International Falls, MN. Joe Hunter of the Rainy River First Nations operates a sturgeon conservation hatchery on the banks of the river, which is home to a healthy sturgeon adult population. Hatchery and state and federal biologists alike then assisted in collecting, fertilizing, disinfecting and transporting the eggs back over the border to the Genoa hatchery. Over 80,000 eggs returned with the crew and were put down in egg jars. The very last egg take of the year now is awarded to Sarnia Ontario, just over the border from Port Huron Michigan. Staff will collect their gear for the 11 hour ride to the site, to assist in egg takes from the St. Clair River strain of lake sturgeon. This egg take is the first step in a long term cooperative restoration effort on the Maumee River in Ohio with collaborators such as the Alpena Fish and Wildlife Conservation Office, the Ontario Ministry of Natural Resources and Forestry, the Toledo Zoo the University of Toledo, and Purdy Fisheries. This is a large river population, with water temperatures that closely resemble Lake Huron. This causes spawning to be much later in the season. The staff looks forward to another summer of lake sturgeon larval and fingerling culture, with the ultimate goal of sturgeon restoration across its historic range. By Doug Aloisi

Lake sturgeon ready to spawn at the Rainy River First Nations conservation hatchery

Collecting egss from a female lake sturgeon

Contaminants of Emerging Concern for Lake Sturgeon

USFWS Ecological Services Biologists from the Bloomington, MN regional office contacted Genoa to participate in an emerging contaminants study. This study, supported by Great Lakes Restoration Initiative, focuses on evaluating contaminants of emerging concern (CECs) within the Great Lakes basin. Examples include chemicals found in pharmaceuticals and personal care products. These chemicals can alter hormone levels causing reproductive declines in aquatic life. Declines in reproduction would negatively impact restoration success of lake sturgeon and other aquatic species. Recently lake sturgeon have been cultured in stream side rearing facilities in multiple locations along rivers that are Great Lakes tributaries to allow for sturgeon to imprint on natal water, with the hope of increasing site fidelity as a returning spawning adult. Contaminants present in rearing waters could negatively affect homing responses, reproductive success, survival and growth of lake sturgeon. Therefore, the USFWS is collaborating with other federal, state and tribal partners to evaluate contaminants that may be present in rivers with lake sturgeon streamside rearing facilities and other rivers that may serve as future sites for streamside rearing facilities. Biologists will be evaluating the water as well as eggs, larvae and adult lake sturgeon for contaminants in the water and in the fish tissue. Genoa National Fish Hatchery uses well water as source water containing little to no contaminates, thus fish raised at Genoa will serve as a control for this study. This will allow researchers to compare levels of contaminants in a natural river system vs. that of a controlled system with minimal contaminants. In an effort to better understand the impact of ecologically relevant levels of CECs on lake sturgeon the goals of the study are: 1) evaluate how CEC's are impacting imprinting in developing sturgeon eggs and juveniles, 2) evaluate if CEC's are being transferred from maternal parent to offspring, and 3) compare SRF to traditional hatcheries to see if CEC's could be impacting growth rates and survival of sturgeon. Data resulting from this study may help inform best management practices for lake sturgeon management including selection of stream side rearing and re-introduction locations. By Orey Eckes



Lake Sturgeon eggs incubating on hatching screens

Lake sturgeon (45 days old)

Phase One Harvest Complete at Genoa NFH

Pond season has come and gone at Genoa National Fish Hatchery (NFH), well half of it anyway. Each summer the station harvests its pond twice to distribute fish, meet and manage production goals, and set aside fish for the mussel program. First to be harvested this spring were the walleye ponds. This was a very good year for our phase one walleye program. Each of the four ponds produced well and the numbers allowed for four ponds to be used for the phase two part of walleye production. Excess fish were shipped and delivered to three tribal, federal and state partners. The 2nd phase of walleye production is very important at the hatchery as many of them will be used for the mussel program to raise black sandshell mussel on station. The next species in line to be harvested was Yellow Perch. A different culture method is used to produce Yellow Perch on station as opposed to the Walleye where eggs are collected off of the river. The hatchery maintains an adult population of Yellow Perch brood fish that are stocked into the pond to spawn and reproduce naturally. This year's production was very high and 212,000 juvenile yellow perch were harvested. 40,000 Yellow Perch were shipped to a U.S. Fish and Wildlife Service partner in Southern Illinois, Iowa DNR received 46,000, and Wisconsin DNR happily took the remainder to be stocked in Wisconsin waters.

Hatchery staff and volunteer harvest spring walleye fingerlings

The next round of pond harvesting took place with Largemouth Bass. Largemouth Bass production yielded enough fingerlings to restock into hatchery ponds to be used for mussel production and stocking partnerships in the fall. The hatchery rarely stocks out the initial Largemouth Bass fingerlings because they are a crucial part of the mussel recovery program serving as the host for the endangered Higgin's Eye Pearly Mussel. The hatchery likes to maintain high numbers on station to meet the demands of the mussel program. Smallmouth Bass numbers on station were high this year as well. However these fish were not harvested in the traditional sense of draining the ponds and removing juveniles from adults. In approximately mid-May the Smallmouth Bass on station begin to build nests and soon after lay their eggs. Not long after the fry begin to hatch and swim up off the nest. At this time staff at the hatchery don's waders and aquarium nets and removes the swim up fry off of the nest. The fry are placed in the sturgeon building in rearing tanks and fed brine shrimp and bloodworms (traditionally sturgeon food on station) and grown until adequate pond space is freed up. The juveniles are then stocked into the pond for phase two grow out. This is a relatively new method for the hatchery as traditionally they were stocked directly into a new pond as fry. Using this tank rearing method and fattening the fry up before stocking has led to and very high recovery rate come fall. These fish were all serve as a host fish for the federally endangered Higgin's Eye Pearly Mussel. Stay tuned and keep watch for fall harvest to see how the ponds produce in the second round! By Aaron Von Eschen

The ending of a pond harvest

Upcoming calendar of events

July 2017

Sun	Mon	Tue	Wed	Thu	Fri	Sat
						1
2	3	4 Independence Day	5	6 Sheepnose mussel collection	7	8 Youth Outdoor Fest
9	10 Troup 11 La-Crosse Boy Scout Tour	11	12 La Crosse County Hmong Elders Tour	13	14	15
16	17	18 Fragosa Mussel population sampling-Hudson/Hidden Falls	19	20	21 USSA Sumerfest Event	22
23 30	24 31 Higginsii Tagging Chippewa Higginsi release and fragosa monitoring	25	26	27	28	29